

# A Remarkable New Cancellariid from the Philippines, with Comments on Other Taxa

(Gastropoda : Volutacea)

BY

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(Plate 43; 2 Text figures)

SOME TIME AGO Mr. and Mrs. Clifford Ames, who reside in the Philippines, submitted to us a specimen of a cancellariid which had been taken by Mr. Mario Mercado during trawling operations off Marinduque Island, Philippines. This distinctive gastropod apparently is an undescribed species. It does not seem to have been reported by SCHEPMAN (1908-1913) from the collections of the "Siboga" trawled in Indonesian waters, nor is it represented in the extensive deep water dredgings of the "Albatross" in Philippine waters, which are now housed in the U. S. National Museum, Smithsonian Institution. The species is named in honor of the collector, Mario Mercado.

*Scalptia* JOUSSEAUME, 1887

Type species: *Scalptia obliquata* LAMARCK, 1822, by OD.

WENZ (1938) considered *Scalptia* to be a subgenus of *Trigonostoma* BLAINVILLE, 1827, of which the type species is *Delphinula trigonostoma* LAMARCK, 1822, by M and tautonymy. More recent workers, notably HABE (1961 a and 1961 b; 1964), HABE & KOSUGE (1966) have accorded *Scalptia* full generic recognition.

*Scalptia mercadoi* OLD, spec. nov.

(Plate 43, Figures 1 to 3; Text figures 1 and 2)

**Description of Holotype:** (Plate 43, Figure 1) Shell ovate, with an extended spire forming an angle of 50°. Aperture less than one half the length of the shell. Shell measuring 34+ mm in length; 19 mm in width. Shell of 6½ whorls. Nucleus of about 2½ whorls (partially missing in the holotype). Nuclear area and first two post-embryonic

whorls translucent, due to cleaning. Body whorl ornamented with 9 large raised ribs. Ribs rather narrowly attached, excavated on both leading and trailing edges. Excavation deeper on leading edge. Penultimate whorl with 10 raised ribs. Ribs truncate posteriorly, and sutures deeply channeled. Sutures bridged by posterior margin of old varices, which connect with the varix obliquely above (see Text figure 1).

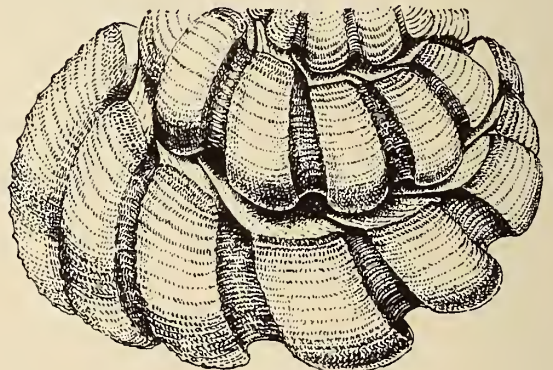


Figure 1

*Scalptia mercadoi* OLD, spec. nov.

Enlargement of body whorl and penultimate whorl of holotype showing detail of sutures; x 4

Drawing courtesy of Mr. Anthony D'Attilio

Ribs on body whorl ornamented with raised, spiral threads, commonly 22 in number and with one or more weaker threads between. Interstices of ribs also with transverse threads, from 22 to 24 in number. Interstices

also ornamented with fainter axial sculpturing, imparting a delicate cancellate effect. Profile of rib strongly convex, thickest near the trailing edge, and convexity diminishing towards the leading edge.

Umbilicus deep and profound, entered by anterior attachments of ribs.

Aperture elliptically ovate, with 8 raised spiral cords on outer wall. Exterior ribs are visible as axial lines. Posterior canal with one strong, grooved rib. Three spiral plaits on columella, of which the uppermost plait is the strongest.

Color of shell light orange. Body whorl ornamented with 2 conspicuous bands of light purplish-brown, one at periphery, the other between the periphery and the anterior angulation of the ribs. A third, fainter band of pigmentation is indicated at posterior or uppermost angulations of ribs. Aperture bluish-white, shading to light orange on the columella.

From a portion of the partially decomposed animal, the holotype was determined to be a male.

Periostracum unknown.

**Type locality:** Trawled in 175 fathoms, off Gasan, Marinduque Island, Philippines. November 2, 1965.

**Type depository:** American Museum of Natural History, no. 138276.

**Descriptions of paratypes:** Paratype "A." (Plate 43, Figure 3). Shell of 35.4 mm in height, 18.5 mm in width. Shell of  $8\frac{1}{2}$  whorls. Nucleus intact, and consisting of  $2\frac{1}{2}$  whorls. Nucleus polished and tan in color. Body whorl with 10 ribs, more crowded than those of the body whorl of the holotype. It was collected in Tayabas Bay, Quezon, Philippines, on November 14, 1966. Paratype "A" in collection of Mr. and Mrs. Crawford N. Cate, no. CA 107, ex Romeo Lumawig.

Paratype "B" (Plate 43, Figure 2) measures 26 mm in height and 16.4 mm in width. The coloration is darker than in either of the other specimens, the transverse bands being of a dark purplish-brown, and the orange pigmentation is more livid. The interstices are suffused with solid purplish-brown, the transverse banding being faintly discernible as darker coloration. The umbilicus is almost completely closed. The columella is colored a pale orange shading to dark purplish-brown in the area of the plaits. It was trawled in 120 fathoms, Tayabas Bay, Luzon, Philippines, in 1966. The radula of this specimen was extracted and sketched by Mr. Masao Azuma (see Text figure 2). Paratype "B" in the collection of Mr. Victor Dan, of Manila.

Additional, non-typological specimens are in the collection of Mr. F. G. Dayrit of Manila (figured by DAYRIT, 1967, p. 4, fig. 4).

**Remarks:** The new species differs markedly from its congeners by its larger size, ornate ribbing, and coloring.

*Scalptia mercadoi* is perhaps closest in relationship to *S. textilis* (KIENER, 1841), and to *S. scalariformis* (LA-



Figure 2

*Scalptia mercadoi* OLD, spec. nov.

Enlargement of radula (approximately  $\times 480$ )

Length about 3 mm, width  $2\mu$ . Drawing courtesy of Mr. Anthony D'Attilio, from a sketch by Mr. Masao Azuma

MARCK, 1822). KIENER's species also occurs in the Philippines, but it inhabits shallower water than does *S. mercadoi*. LAMARCK (1822) briefly described *Cancellaria scalariformis* without citing figures or localities. SOWERBY (1833) stated, "[Lamarck's] *C. scalariformis* is unknown to me." DESHAYES & MILNE-EDWARDS (1843) repeated Lamarck's description, citing figures of KIENER (1841). These figures seem to be referable to specimens in the American Museum which appear to be Lamarck's taxon.

Other figures and descriptions of related taxa which somewhat resemble the new species, are those of *Cancellaria funiculata* HINDS, 1844 and of *C. lyrata* ADAMS & REEVE, 1848 (non BROCCHI, 1814, nor BORSON, 1820). *Cancellaria funiculata* was described as having been taken in 7 fathoms, Gulf of Magdalena [Mexico]. The locality of *C. lyrata* was given as "China Seas," which REEVE (1856) and LÖBBECKE (1887) believed to be erroneous. REEVE, LÖBBECKE, and CROSSE (1861) considered *C. lyrata* of ADAMS & REEVE to be synonymous with *Cancellaria funiculata* HINDS. KEEN (1958) questioned the Panamic occurrence of *Trigonostoma funiculata* (HINDS), but this sentence has been deleted from the 1960 edition, probably due to the examination of material with reliable locality data from the Panamic marine province. The American Museum has 8 specimens taken in 30 fathoms, by the Templeton Crocker Expedition at Manzanillo, Mexico in 1938. These specimens appear to be typical specimens of Hind's *funiculata*.

In recent years, both of these specific taxa also have been applied to shells occurring in the western Pacific. KURODA & HABE (1952), however, queried the occurrence of *Trigonostoma funiculata* (HINDS) in Japanese waters. HABE (1961a) proposed the generic name *Nipponaphera* with *N. lyrata* (ADAMS & REEVE) as the type species. HABE (1961b, 1964) repeated the same figure (as in 1961a), but employed Hind's taxon, *N. funiculata*. OYAMA (1963) also figured a Japanese specimen under this name. Japanese shells which have been referred to *N. funiculata* (HINDS) are probably specimens of *N. iwaotakii* HABE, 1961, though HABE (1961b) cited sculp-

tural differences between his species and shells which had been identified as *N. funiculata* from Japanese waters.

The taxon *Cancellaria lyrata* also has been employed for a species from the Tertiary of Europe. BROCCHI, 1814, had described the fossil from the Piedmont district of Italy as *Voluta lyrata*. BORSON (1820) subsequently used the combination *Cancellaria lyrata* for Brocchi's species (*vide* SACCO, 1894). Most workers have placed Brocchi's *lyrata* in the genus (or subgenus) *Sveltia* JOUSSEAUME, 1887, although STRAUZ (1966) recently referred the fossil species to the subgenus *Calcarata* JOUSSEAUME, 1887, which he placed in *Cancellaria* (*s.l.*).

In the present century, the taxon *Sveltia lyrata* (BROCCHI) also has been applied to a Recent species that is rather rarely trawled off western Africa. DAUTZENBERG & FISCHER (1906) cited a specimen from 628 m near Maio, Cape Verde; ADAM & KNUDSEN (1955) cited 4 examples from 145 m, 210 m, and 230 m off Cabinda; MARCHE-MARCHAD (1958) off Cape Verde, GRAHAM (1966) cited material from 170 - 200 fathoms, in the Gulf of Guinea; and BARNARD (1958, 1959) off South West Africa. BARNARD questioned the use of Brocchi's taxon for the Recent mollusk. It is unlikely that the Recent species and the Mio-Pliocene fossil from northern Italy and Central Europe are conspecific.

## ACKNOWLEDGMENTS

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I am particularly indebted to my colleagues at the American Museum of Natural History, Dr. William K. Emerson, Mr. Anthony D'Attilio, and Mrs. Margaret Richards for various courtesies.

## Explanation of Plate 43

*Scalptia mercadoi* OLD, spec. nov.

Figure 1: Holotype (AMNH no. 138276); trawled in 175 fathoms, off Gasan, Marinduque Island, Philippines (x 2). c: Basal view of holotype (x 2)

Figure 2: Paratype "B" (Victor Dan collection); trawled in 120 fathoms, Tayabas Bay, Quezon, Philippines. (x 2)

Figure 3: Paratype "A" (Crawford and Jean Cate collection); Tayabas Bay, Quezon, Philippines. a: view of apex (approximately x 10); b and c (x 2)

Photographs courtesy of American Museum of Natural History

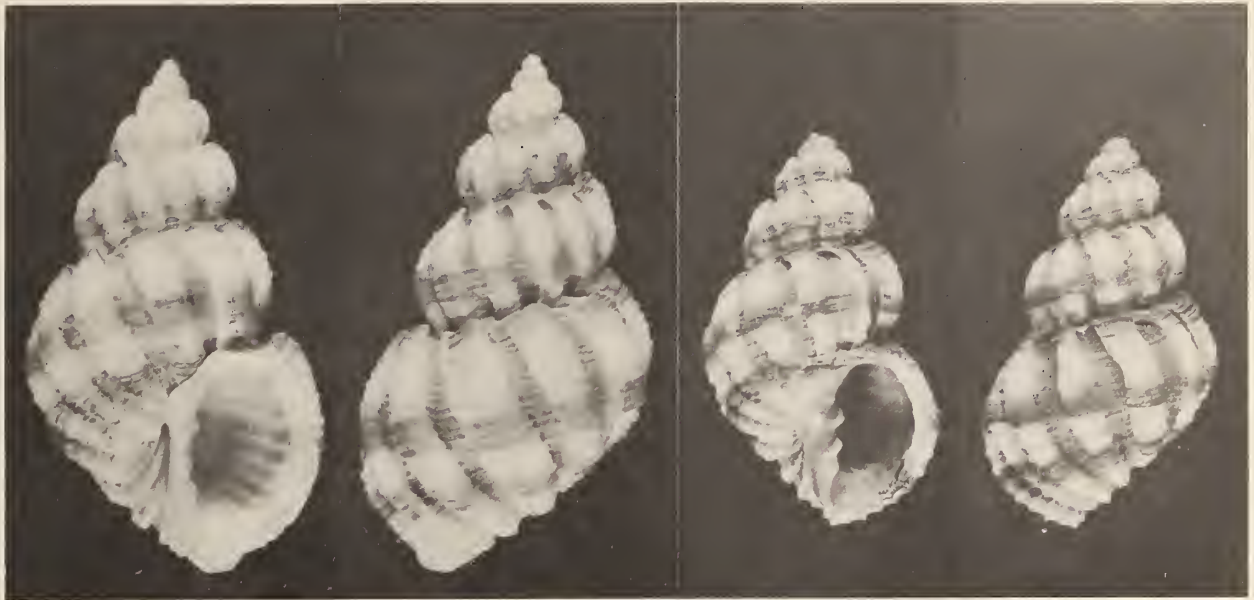


Figure 1 a

Figure 1 b

Figure 2 a

Figure 2 b

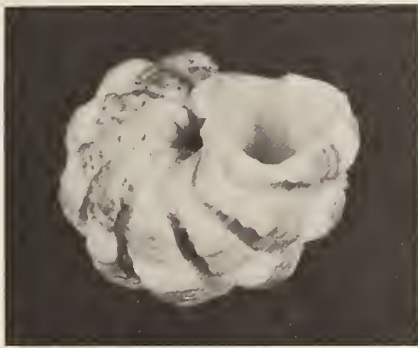


Figure 1 c

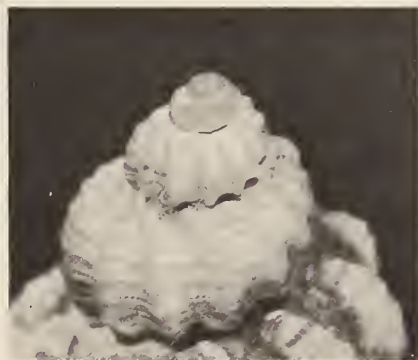


Figure 3 a

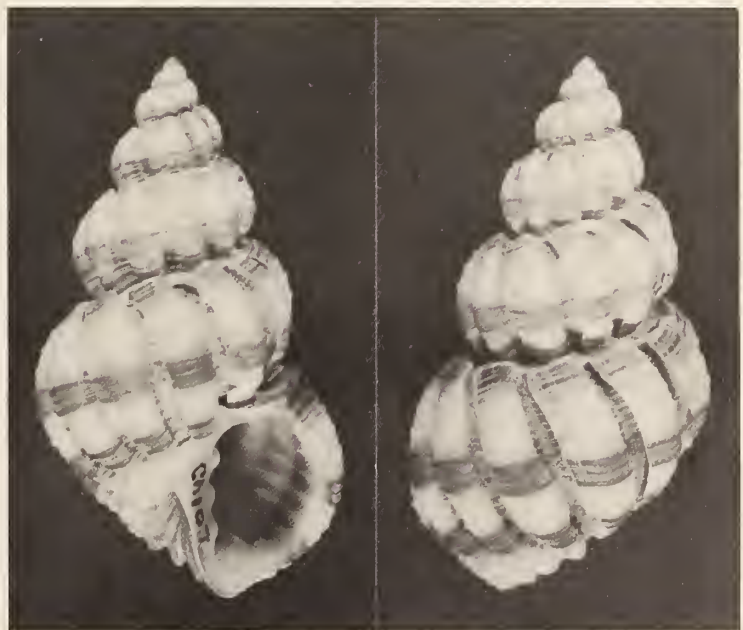


Figure 3 b

Figure 3 c